REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-11 and 14-22 are pending.

In the outstanding Office Action, Claims 1-11 and 14-22 were rejected as being unpatentable over the admitted prior art in view of Ashley et al. (U.S. Patent No. 6,584,273, hereinafter "Ashley") in view of Hurvig et al. (U.S. Patent No. 6,507,592, hereinafter "Hurvig").

Applicant respectfully requests that the present rejection be reconsidered. In particular, the basis of the present rejection is that even though the primary reference and the admitted prior art do not disclose all the elements of Claim 1, the Office Action asserts that Hurvig cures the deficiency. Applicant respectfully traverses this assertion. A brief recapitulation is in order.

Applicant recognizes, as does the Office, that Ashley does not disclose all the elements of Claim 1. Furthermore, the purpose of explaining that the "audio buffer having the capacity capable of buffering the audio data corresponding to the time required for inputting this second picture to the video buffer" is based on the earlier recognition that the source packets are outputted according to the arrival time stamp of the multiplex stream, which is a feature that is absent in both the asserted prior art and Ashley.

Neither the admitted prior art not Ashley recognize what the present inventors' recognized that between the time period where the input of the last video packet (time period T1) and the input of the last byte of remaining packets of a first packet stream (time T2), in conventional systems, the arrival time stamp of the source packet is ignored. Ashley also disregards the arrival time stamps during this time period. This can be seen at column 10, lines 12-13, where during the time period T1-T2 the remaining packets of the last bytes at the

last video packet enter the STD at a multiplex rate of SEQ.1. Thus, Ashley processes these packets during this time frame in the same way as done with the admitted prior art.

Moreover, Ashley explains that it doubles the size of the buffer... (col. 10, lines 32-40). The admitted prior art also suffers the same performance problem and requires a larger buffer memory (see page 33). Hurvig neither identifies the source of this problem nor provides any suggestion to cure it. Moreover, neither the APA nor Ashley were aware that there was any problem to solve.

It was Applicants that first recognized that there is a problem with conventional systems that requires more buffer memory than what is necessary (see, e.g., paragraph [0001] at page 33 of the present specification). In the nonlimiting example of Figure 9, a timing chart shows the processing shift between a first transport stream TS1, and a second transport stream TS2, seamlessly connected to the AV stream TS1. The transport stream is input to the buffer at a maximum rate of TS and an input of the source packet between the times T1 and T2 is determined by an arrival time stamp (see, e.g., page 33 of the source packets of TS1). This approach eliminates an additional buffer memory corresponding to one second that has been conventionally required in both Ashley (see col. 10, lines 30-31) and the admitted prior art (specification page 33) for inputting the transport packet at the maximum bit rate. As a consequence, Applicants recognized that it is possible for the audio buffer size to be reduced to one being capable of 100 milliseconds of additional memory (page 42, last paragraph, continuing to page 43).

The Office Action asserts Hurvig in an attempt to cure the deficiency in the admitted prior art and Ashley of not having an output means that continues to output source packets according to the arrival time stamp between a time T1 and T2. However, Hurvig is directed to two-way communication of data in a time division multiplex system (column 3, lines 65-67). Moreover, the time division multiplex system operates according to conventional

standards that allow for conveyance of packet data to cable modems (column 11, lines 50-55).

It should be noted that Claim 1 outputs the source packets according to the arrival time stamp between the time T1 and T2 and it was Applicant that recognized that the advantage of this approach is that the audio's buffer size may be reduced to one capable of handling 100 msec. Neither the APA, nor Ashley nor Hurvig implicitly or explicitly recognized the flaw of conventional devices and proposed how to reduce buffer size by outputting source packets between T1 and T2 according to the arrival time stamp.

Hurvig is directed to a data communication scheme, that would do nothing to identify what the source of the problem was that was first appreciated by the present inventors, namely that by following conventional practice, an additional buffer memory is needed, more than necessary (see, e.g., [0001] at page 33 of the specification). According to Applicant's recognition of the source of the problems, Applicant developed a solution that made it possible for the audio buffer size to be reduced to one capable of 100 milliseconds of additional memory (page 42, last paragraph, continuing to page 43).

MPEP § 2141.02(III) indicates that the Office must give patentable weight to the discovery of a cause of a problem. In particular, this MPEP section states "[a] patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified. This is part of the 'subject matter as a whole' which should always be considered in determining the obviousness of an invention under 35 U.S.C. § 103." *In re Sponnoble*, 405 F.2d 578, 585, 160 USPQ 237, 243 (CCPA 1969).

Such is the case with Applicant's invention. It was Applicant that recognized a problem with conventional systems and it was not previously recognized that there was value in continuing to output the source packets according to the arrival time stamp between a time

T1 and T2, as claimed. Moreover, this is done in the context of an information processing device that decodes a multiplex stream when receiving a second picture, which is the first picture of a second multiplex stream, is connected to a first picture. Instead, neither the admitted prior art nor Ashley teach or suggest these features, and Hurvig also does nothing to identify the source of the problem, or provide a solution, that in any way would suggest that using the output means that continues to output the source packets according to the arrival time stamp, as claimed, would give rise to the beneficial effects of smaller buffer size. Therefore, it is respectfully submitted that when considering the invention as a whole, the presently claimed invention is the result of Applicant identifying the source of the problem, and providing the solution to that problem which provides beneficial effects, namely the reduced size of the audio buffer.
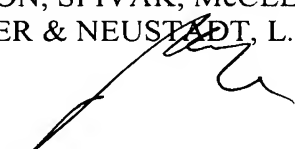
It is respectfully submitted that the combination of Hurvig in view of Ashley does not cure the deficiency, as Ashley and the admitted prior art include time stamps, but they ignore them. Hurvig also includes time stamps, and provides no suggestion that Ashley or the admitted prior art would benefit by having an output that continues to output the source packets according to the arrival time stamp.

For similar reasons it is believed that Claims 2-11 and 14-22 also patentably define over the asserted prior art.

Consequently, in light of the foregoing comments it is respectfully submitted that the

invention defined by Claims 1-11 and 14-22 patentably defines over the asserted prior art.

The present application is therefore believed to be in condition for formal allowance and an

early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

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